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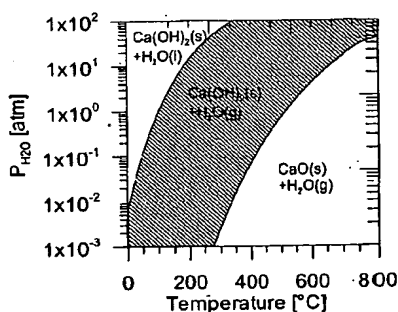
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(54) Title: METHOD AND APPARATUS FOR HYDRATION OF A PARTICULATE OR PULVERULENT MATERIAL CONTAINING CAO, HYDRATED PRODUCT, AND USE OF THE HYDRATED PRODUCT

$$6,85 - \frac{5459}{(T+273)} < \log P_{H_2O} < 5,45 - \frac{2032}{(T+273)} \quad (I)$$



(57) Abstract: Described is a method as well as an apparatus for hydration of a particulate or pulverulent material containing CaO. The method is peculiar in that water is added in a quantity which will ensure that the partial pressure P_{H_2O} of the added water as a function of the temperature (°C) is maintained within the interval defined by the formula (I), where P_{H_2O} is the partial pressure of water vapour in atm. and T is the temperature in °C. Hereby is obtained that the material particles do not lump into agglomerates, and that the particles are hydrated evenly from the outside and inwards so that it is the active surface of the material particles which undergoes hydration in connection with partial hydration. This is due to the fact that the liquid water will not get into contact with the material particles since the water will appear in vapour form within the specified interval.